Amendments to the Claims

1. (Currently Amended) An actuator comprising:

a frame;

a driving source for generating a driving force;

a feed screw shaft mechanism for transmitting said driving force of said driving source, said feed screw shaft mechanism being assembled into a single unit including a feed screw shaft and a feed screw nut and detachably installed to said frame;

a slider having an opening for receiving said feed screw shaft and said feed screw nut therein, said slider being capable of reciprocating in an axial direction of said frame under an action of said driving force transmitted by said feed screw shaft mechanism; and

a guide mechanism for guiding said slider when said slider is displaced along said frame, wherein said guide mechanism includes plates and covers which are connected to and move together with said slider, and ball return guides which are installed to side surfaces of said slider and accommodated within said covers.

2. (Currently Amended) The actuator according to claim 1, wherein said driving source is a rotary driving source, said feed screw shaft is rotatable in a predetermined direction under a driving action of said rotary driving source, and said feed screw nut has a penetrating screw hole for receiving said feed screw shaft,

said [feed screw shaft mechanism being assembled into a] single unit including said feed screw shaft, said feed screw nut, a bearing holding member, and a bearing mechanism.

3. (Currently Amended) The actuator according to claim 1, wherein said driving source is a rotary driving source, said feed screw shaft is rotatable in a predetermined direction under a driving action of said rotary driving source, and said feed screw nut has a penetrating screw hole for receiving said feed screw shaft,

said [feed screw shaft mechanism being assembled into a] single unit including said feed screw shaft, said feed screw nut, a bearing holding member, a bearing mechanism, and a housing for supporting said rotary driving source.

4. (Currently Amended) The actuator according to claim 1, wherein said driving source is a rotary driving source, said feed screw shaft is rotatable in a predetermined direction under a driving action of said rotary driving source, and said feed screw nut has a penetrating screw hole for receiving said feed screw shaft,

said [feed screw shaft mechanism being assembled into a] single unit including said feed screw shaft, said feed screw nut, a bearing holding member, a bearing mechanism, a housing for supporting said rotary driving source, and an end plate.

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5. (Original) The actuator according to claim 1, wherein said feed screw nut is a ball screw nut having a cylindrical section having a penetrating screw hole, and a pair of flange sections which are formed integrally at one end of said cylindrical section and which are fixed to a side surface portion of said slider.

6. (Currently Amended) The actuator according to claim 1, wherein ~~[said guide mechanism includes plates and covers which are connected to said slider and return guides which are installed to side surfaces of said slider, and]~~ those of said plates, said covers, and said ball return guides ~~[,]~~ which are disposed on one side in an axial direction of said slider ~~[,]~~ are composed of the same constitutive components as those of said plates, said covers, and said ball return guides which are disposed on another side in said axial direction of said slider.

7. (Original) The actuator according to claim 1, wherein said opening extends in said axial direction, and defines a U-shaped inner surface of said slider.

8. (Original) The actuator according to claim 7, wherein said slider has a hole which penetrates from said opening to said frame.

9. (Original) The actuator according to claim 8, wherein said hole has a rectangular cross section.

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10. (Original) The actuator according to claim 1, wherein a sensor is attached to one side surface on an outer side of said frame with an attachment member, and said sensor detects an object which is displaceable in unison with said slider.